

What Is Claimed Is:

1. A spectacle lens comprising:
 - a front surface;
 - a back surface;
 - a peripheral edge; and
 - a vision correcting area having a refractive error correction, wherein at least a portion of the refractive error correction is based on a lens prescription determined by a wave front analysis of a wearer's eye and wherein the vision correcting area corrects non-conventional refractive error to provide at least a part of the wearer's vision correction and wherein the peripheral edge is capable of being modified to fit within an eyeglass frame.
2. The lens of claim 1 wherein the vision correcting area corrects for conventional refractive error.
3. The lens of claim 1 wherein the vision correcting area corrects for aberrations of the lens.
4. The lens of claim 1 wherein the lens comprises a material having a variable index of refraction.
5. The lens of claim 1 wherein the lens comprises a material having a modifiable index of refraction.

6. The lens of claim 1 wherein the back surface is concave.
7. The lens of claim 1 wherein the lens is capable of correcting non-conventional refractive error caused by one of aberrations, irregular astigmatism, and ocular layer irregularities.
8. The lens of claim 1 wherein the lens provides a prismatic power.
9. The lens of claim 1 wherein the lens has a chromic characteristic.
10. The lens of claim 1 wherein correction of unconventional refractive error is provided by localized changes in a refractive power of the lens.
11. The lens of claim 1 wherein the lens corrects the wearer's vision to better than 20/20.
12. The lens of claim 1 wherein the lens corrects the wearer's vision to better than 20/10.
13. A method for producing a spectacle lens for the correction of non-conventional refractive error comprising:
 - determining a lens prescription for unconventional refractive error based in part on a wave front analysis of an eye.
 - providing a lens to correct for refractive error having a front surface, a back surface, a

vision correcting area, and a peripheral edge;

modifying the lens to provide correction of least a portion of the lens prescription for unconventional refractive error;

modifying the peripheral edge of the lens to fit within an eyeglass frame; and

inserting the lens into the eyeglass frame.

14. The method of claim 13 wherein the lens provided is manufactured from a semi-finished lens blank.

15. The method of claim 13 wherein the unconventional refractive error is corrected in part by a refractive index change.

16. A spectacle lens comprising:

a front surface;

a back surface;

a peripheral edge; and

a vision correcting area having a refractive error correction, wherein the vision correcting area uses adaptive optics to correct for non-conventional refractive error to provide a wearer better than 20/20 vision and wherein the peripheral edge is capable of being modified to fit within an eyeglass frame.